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I claim:

1. A method for assessing chemosensitivity of patient cells comprising the steps of:

- a) harvesting a specimen of a patient's tissue,
 cells ascites, or exfusion fluid;
- b) separating said specimen into multicellular particulates;
- c) growing a tissue culture monolayer from said cohesive multicellular particulates;
- d) inoculating cells from said monolayer into a plurality of segregated sites; and
- e) treating said plurality of sites with at least one treating means, followed by assessment of sensitivity of the cells in said site to said at least one treating means.
- 2. The method according to claim 1 wherein step a) further comprises the step of /
- a) preparing a specimen which was harvested from a sample of patient tumor tissue.
- 3. The method according to claim 1 wherein said plurality of segregated sites further comprises a plate containing a plurality of wells therein.
- The method according to claim 1 wherein step e) further comprises the step of:
- e) treating said plurality of sites with a plurality of active agents at varied concentrations, followed by assessment of optimal chemosensitivity with respect to a single active agent at a single consentration.

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The method according to claim 1 wherein said treating means further comprises:

treating said plurality of sites with a plurality of active agents over a length of time adequate to permit assessment of both initial cytotoxic effect and longer-term inhibitory effect of at least one of said plurality of active agents.

- 6. The method according to claim 1 wherein the sensitivity assayed according to step e) is anti-cancer sensitivity.
- 7. The method according to claim 1 wherein step d) is accomplished using a Terasaki dispenser.
- 8. The method according to claim 1 wherein the cells in step d) are prepared in suspension prior to inoculation into a plurality of wells in a culture plate.
- 9. The method according to claim 1 wherein said treating means is a chemotherapeutic agent.

10. The method according to claim 1 wherein said active agent is a wound healing agent.

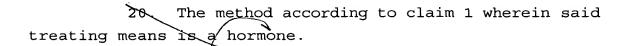
- 11. The method according to claim 1 wherein said treating means is a radiation therapy and/or a radiation therapy sensitizing or ameliorating agent.
- 12. The method according to claim 1 where said treating means is an immunotherapeutic agent.
- 13. The method according to claim 1 wherein the step of assessment of sensitivity includes monitoring culture medium in which the monetayer is grown for production of soluble factors indicative of a disease state or lack thereof.

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- 14. The method according to claim 1 wherein the step of assessment of sensitivity includes histochemical or immunohistochemical detection of cellular markers.
- 15. A method for identifying chemosensitivity of patient cells comprising the steps of:
- a) harvesting a specimen of a patient's tissue, cells ascites, or effusion fluid;
- b) separating said specimen into multicellular particulates;
- c) growing a tissue culture monolayer from said cohesive multicellular particulates; and
- d) immunohistochemically staining said cells to identify one or more cellular factors.
- 16. A method for identifying secreted cellular antigens produced by patient cells comprising the steps of:
- a) harvesting a specimen of a patient's tissue, cells ascites, or effusion fluid;
- b) separating said specimen into multicellular particulates;
- c) growing a tissue culture monolayer in culture medium from said cohesive multicellular particulates; and
- d) assaying said culture medium for secreted factors.
- 17. The method according to claim 1 wherein said treating means is a gene therapy agent.
- 18. The method according to claim 17 wherein said gene therapy agent is an antisense/oligonucleotide.
- 19. The method according to claim 1 wherein said treating means is a combination of two or more therapeutic agents.



21. The method according to claim 1 wherein said treating means is a biological response modifier.

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